

Count the mineral deposits

Develop a C/C++ program that reads the overhead maps of mineral fields to count how many unique deposits there are. Your program will use a single command line argument to identify the filename that contains the maps to analyze.

The files will contain some number of maps. Each map begins with a line that says how many rows are in the map, after which you'll find the rows. Each map will be a rectangle (ie, there won't be any weird side nubs that stick out or anything). In each map, any digit represents one of 10 different minerals (0-9). Minerals that touch the same mineral are part of the same deposit. Subcardinal (or diagonal) connections are not considered touching and might not be a part of the same deposit.

For each map in the file, print the map number with the file line number it begins on, how many unique deposits there are, and how many instances of each mineral that appears.

Example input file	Expected output to console
5 33.5.77. 633.9777 3....9.. 6.669..4 .6...444 3 14444 1.742 15728 2	1(1): deposits=12 3s=5 4s=4 5s=1 6s=5 7s=5 9s=3 2(7): deposits=7 1s=3 2s=2 4s=5 5s=1 7s=2 8s=1 3(11): no deposits